

TTGTAACAGA AATTAAAAAT ATACTCCACT CAAGGGAATT CTGTACTTTG CCCTTTTGGT -99
 AAAGTCTCAT TTACATTCTT AAACCTTTCT TAAGAAAATC GAATTTCTCTT TGATCTCTCT -39
 1 -1 M T S C H I
 TCTGAATTGC AGAAATCAGA TAAAAACTAC TTGGTGAA ATG ACT TCT TGT CAC ATT 18
 7 A E E H I Q K V A I F G G T H G
 GCT GAA GAA CAT ATA CAA AAG GTT GCT ATC TTT GGA GGA ACC CAT GGG 66
 23 N E L T G V F L V K H W L E N G
 AAT GAG CTA ACC GGA GTA TTT CTG GTT AAG CAT TGG CTA GAG AAT GGC 114
 39 A E I Q R T G L E V K P F I T N
 GCT GAG ATT CAG AGA ACA GGG CTG GAG GTA AAA CCA TTT ATT ACT AAC 162
 55 P R A V K K C T R Y I D C D L N
 CCC AGA GCA GTG AAG AAG TGT ACC AGA TAT ATT GAC TGT GAC CTG AAT 210
 71 R I F D L E N L G K K M S E D L
 CGC ATT TTT GAC CTT GAA AAT CTT GGC AAA AAA ATG TCA GAA GAT TTG 258
 87 P Y E V R R A Q E I N H L F G P
 CCA TAT GAA GTG AGA AGG GCT CAA GAA ATA AAT CAT TTA TTT GGT CCA 306
 103 K D S E D S Y D I I F D L H N* T
 AAA GAC AGT GAA GAT TCC TAT GAC ATT ATT TTT GAC CTT CAC AAC ACC 354
 119 T S N M G C T L I L E D S R N N
 ACC TCT AAC ATG GGG TGC ACT CTT ATT CTT GAG GAT TCC AGG AAT AAC 402
 135 F L I Q M F H Y I K T S L A P L
 TTT TTA ATT CAG ATG TTT CAT TAC ATT AAG ACT TCT CTG GCT CCA CTA 450
 151 P C Y V Y L I E H P S L K Y A T
 CCC TGC TAC GTT TAT CTG ATT GAG CAT CCT TCC CTC AAA TAT GCG ACC 498
 167 T R S I A K Y P V G I E V G P Q

FIG.1A

183	ACT CGT TCC ATA GCC AAG TAT CCT GTG GGT ATA GAA GTT GGT CCT CAG	546
	P Q G V L R A D I L D Q M R K M	
199	CCT CAA GGG GTT CTG AGA GCT GAT ATC TTG GAT CAA ATG AGA AAA ATG	594
	I K H A L D F I H H F N E G K E	
215	ATT AAA CAT GCT CTT GAT TTT ATA CAT CAT TTC AAT GAA GGA AAA GAA	642
	F P C A I E V Y K I I E K V D	
231	TTT CCT CCC TGC GCC ATT GAG GTC TAT AAA ATT ATA GAG AAA GTT GAT	690
	Y P R D E N G E I A A I I H P N	
247	TAC CCC CGG GAT GAA AAT GGA GAA ATT GCT GCT ATC ATC CAT CCT AAT	738
	L Q D Q D W K P L H P G D P M F	
263	CTG CAG GAT CAA GAC TGG AAA CCA CTG CAT CCT GGG GAT CCC ATG TTT	786
	L T L D G K T I P L G G D C T V	
279	TTA ACT CTT GAT GGG AAG ACG ATC CCA CTG GGC GGA GAC TGT ACC GTG	834
	Y P V F V N E A A Y Y E K K E A	
295	TAC CCC GTG TTT GTG AAT GAG GCC GCA TAT TAC GAA AAG AAA GAA GCT	882
	F A K T T K L T L N A K S I R C	
311	TTT GCA AAG ACA ACT AAA CTA ACG CTC AAT GCA AAA AGT ATT CGC TGC	930
	C L H	
311	TGT TTA CAT TAG AA ATCACTTCCA GCTTACATCT TACACGGTGT CTTACAAATT	984
	CTGCTAGTCT GTAAGCTCCT TAAGAGTAGG GTTGTGCCCTT ATTCAACTGC ATACATAGCT	1044
	CCTAGCACAG TGCCTTATTC GGTAGGCATC TAAGCAAATT TCTTAAATTA ATTAATATAT	1104
	CTTTAAAGAT ATCATATTTT ATGTATGTAG CTTATTTCAAA GAAGTGTTTC CTATTCTAT	1164
	ATAGTTTATT ATACATGATA CTTGGGTAGC TCAACATCT TCAATATTCAG CCTTTGTATT	1224
	CTCAATGTTTATTTT NATTGAATA GATATATATA AAGTTAAAAA AAAAAAAAAAAA AAA	1277

மே

	10v	20v	30v	40v	50v
HLASP	MTSCHIAEEHIQKVAIFGGTHGNELTGVFLVKHWLENGAEIQRTGLEVKPF				
	MTSCH:AE:.I:KVAIFGGTHGNELTGVFLVKHWLEN:EIQRTGLEVKPF				
BASPCDNA	MTSCHVAEDPIKKVAIFGGTHGNELTGVFLVKHWLENSTEIQRTGLEVKPF				
	10^	20^	30^	40^	50^
	60v	70v	80v	90v	100v
HLASP	ITNPRAVKKCTRYIDCDLNRIFDLENLGKKMSEDLPYEVRRRAQEINHLEFGP				
	ITNPRAVKKCTRYIDCDLNR:FD ENLGKK.SEDLPYEVRRRAQEINHLEFGP				
BASPCDNA	ITNPRAVKKCTRYIDCDLNRVFDPENLGKKKSEDLPEYEVRRRAQEINHLEFGP				
	60^	70^	80^	90^	100^
	110v	120v	130v	140v	150v
HLASP	KDSSEDSYDIIFDLHN'TTSNMGCTLILEDNRNFIQMFHYIKTSLAPLPCY				
	KDSSEDSYDIIFDLHN'TTSNMGCTLILEDNRN:FIQMFHYIKTSLAPLPCY				
BASPCDNA	KDSSEDSYDIIFDLHN'TTSNMGCTLILEDNRNDFIQMFHYIKTSLAPLPCY				
	110^	120^	130^	140^	150^
	160v	170v	180v	190v	200v
HLASP	VYLIEHPSLKYATTRSIKYPVGIEVGPQPGVLRADILDQMRKMIKHALD				
	VYLIEHPSLKYATTRSIKYPVGIEVGPQPGVLRADILDQMRKMI:HALD				
BASPCDNA	VYLIEHPSLKYATTRSIKYPVGIEVGPQPGVLRADILDQMRKMIQHALD				
	160^	170^	180^	190^	200^
	210v	220v	230v	240v	250v
HLASP	FIHNFNEGKEFPPCAIEVYKIEKVDYPRDENGIEIAAIHPNLQDQDWKPL				
	FIH:FNEGKEFPPCAIEVYKIEKVDYPR:E:GEI:AIHP:LQDQDWKPL				
BASPCDNA	FIHNFNEGKEFPPCAIEVYKIMRKVDYPRNESGEISAIHPKLQDQDWKPL				
	210^	220^	230^	240^	250^
	260v	270v	280v	290v	300v
HLASP	HPGDPMFLTLTGKTIPLGGDTVYPVFNVEAAYYEKKEAFAKTTKLTNLAK				
	HP.DP:FLTLTGKTIPLGGDTVYPVFNVEAAYYEKKEAFAKTTKLTNLAK				
BASPCDNA	HPEDPVFLTLTGKTIPLGGDTVYPVFNVEAAYYEKKEAFAKTTKLTNLAK				
	260^	270^	280^	290^	300^
	310v				
HLASP	SIRCCLH				
	SIR..LH				
BASPCDNA	SIRSSLH				
	310^				

FIG. 2

0005607.030403

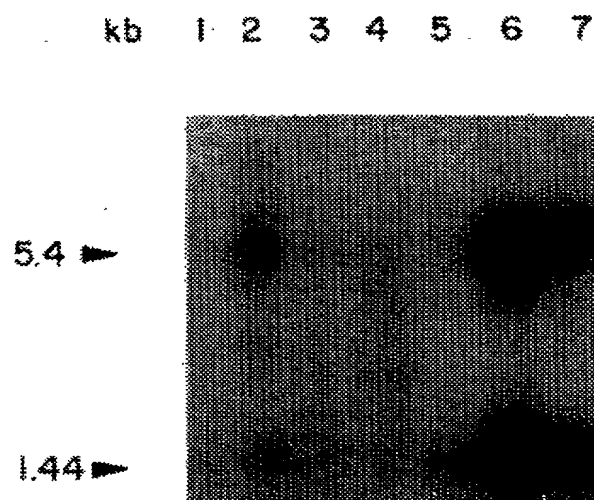


FIG. 3

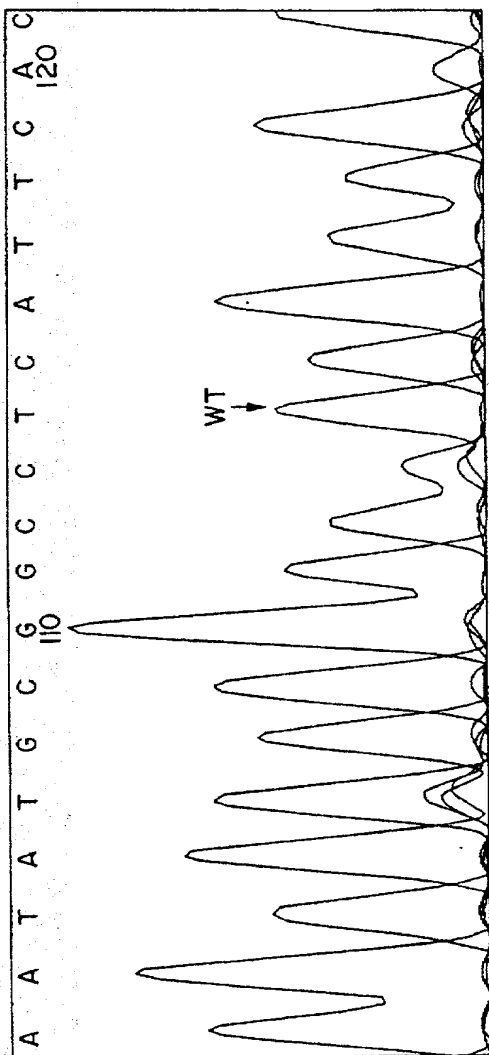


FIG. 5A

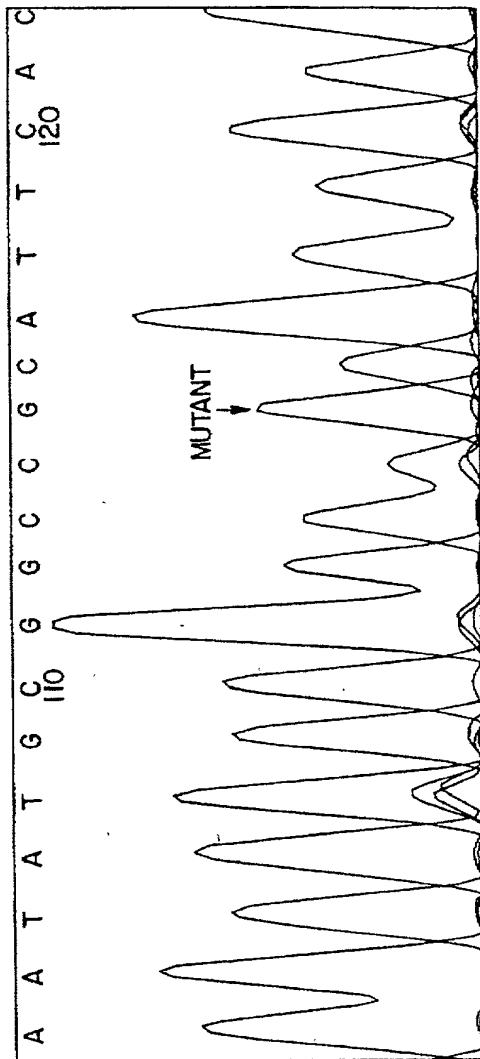


FIG. 5B

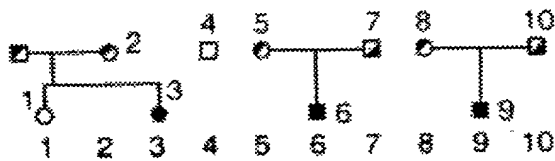
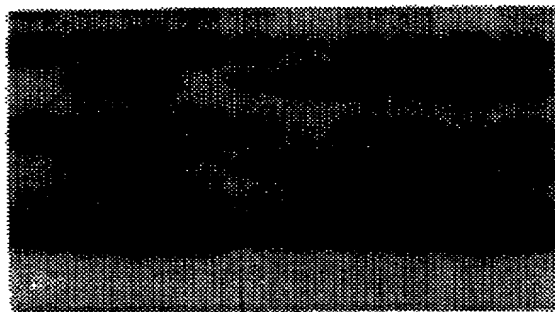
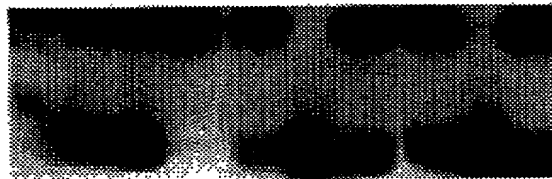


FIG.6A



← WT
← MUT
← WT
← MUT

FIG.6B



← 239 bp
← 125 bp
← 114 bp

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-----+-----+-----+-----+-----+-----

FIG. 7(a)

[illegible]

c t r y i d c d l n r i f d l e n l g k

k m s e d l p y e v r r a g e i n h l f

g p k d s e d s y d i i f d l h n t t s

FIG. 7(b)

✓
TM
RS
UE
91

600

-----+-----+-----+-----+-----+

HMHM
INH N
NLAL
P111

660

-----+-----,-----+-----,-----+-----,-----+-----,-----+-----,-----+-----,

FF	F	IF
OO	O	TN
KK	K	AU
ll	l	lH

720

c693>a
Y23|>X

1990

204020-203560

```
S   PBMDD   F   ESASBBSBXBNMODB
F   SIBPP   O   CEPCCSFIHALBPPI
C   TNONN   K   RCVRAAANOMAONNN
1   11121   1   2111JUN12141211
                /// // // // //
GCTATCATCCATCCTAATCTGCAGGATCAAGACTGGAAACCACTGCATCCTGGGGATCCC
-----+-----+-----+-----+-----+-----+-----+-----+
CGATAGTAGGTAGGATTAGACGTCCTAGTTCTGACCTTTGGTGACGTAGGACCCCTAGGG
a i i h p n l q d q d w k p l h p g d p

-----+-----+-----+-----+-----+-----+-----+-----+
N   TM      B   MOBBBDEMA BBAB   CR   CR
L   RS      B   BPBSPPIBL SACS   SS   SS
A   UE      V   ONSCUNNOW ILIM   PA   PA
3   91      2   121911122 Y112   61   61
/           / // // // //
ATGTTTTTAACTCTTGATGGGAAGACGATCCCACCTGGGCGGAGACTGTACCGTGTACCCC
-----+-----+-----+-----+-----+-----+-----+-----+
TACAAAAATTGAGAACTACCCTTCTGCTAGGGTGACCCGCCTCTGACATGGCACATGGGG
m f l t l d g k t i p l g g d c t v y p

-----+-----+-----+-----+-----+-----+-----+-----+
SM      HIFA      H A
PN      ATNC      I L
OL      EAUI      N U
11      31H1      3 1
/ // // // //
GTGTTTGTGAATGAGGCCGCATATTACGAAAAGAAAGAAGCTTTTGCAAAGACAACTAAA
-----+-----+-----+-----+-----+-----+-----+-----+
CACAAACACTTACTCCGGCGTATAATGCTTTTCTTTCTTCGAAAACGTTTCTGTGATTT
v f v n e a a y y e k k e a f a k t t k

-----+-----+-----+-----+-----+-----+-----+-----+
a854>c
E285>A
```

FIG. 7(e)

S	B	HIF	E	A
P	B	NTN	C	L
O	V	FAU	1	U
1	1	31H	5	1

CTAACGCTCAATGCAAAAAGTATTCGCTGCTGTTTACATTAGAAATCACTTCCAGCTTAC
 GATTGCGAGTTACGTTTTTCATAAGCGACGACAAATGTAATCTTTAGTGAAGGTCGAATG

c914>a
 A305>E

960

l t l n a k s i r c c l h . k s l p a y

RM	A	ATM
MA	L	FRS
AE	U	LUE
11	1	291

ATCTTACACGGTGTCTTACAAATTCTGCTAGTCTGTAAGCTCCTTAAGAGTAGGGTTGTG
 TAGAATGTGCCACAGAATGTTTAAGACGATCAGACATTGAGGAATTCTCATCCCAACAC

1020

i l h g v l q i l l v c k l l k s r v v

B	A	RM	H	D	S
S	L	MA	N	D	F
P	U	AE	F	E	A
W	1	11	3	1	N

CCTTATTCAACTGCATACATAGCTCCTAGCACAGTGCCTTATTCGGTAGGCATCTAAGCA
 GGAATAAGTTGACGTATGTATCGAGGATCGTGTACCGGAATAAGCCATCCGTAGATTCGT

1080

p y s t a y i a p s t v p y s v g i . a

FIG.7(f)

20050500

✓	✓	✓	✓		
TM	ATM	PATM	TDM	E	A
RS	SRS	ASRS	RRS	C	L
UE	EUE	CEUE	UAE	R	U
91	191	1191	911	V	1
/	//	///	/		

AAATTTCTTAAATTAATTAATATATCTTTAAAGATATCATATTTTATGTATGTAGCTTATT
-----+-----+-----+-----+-----+-----+-----+-----+ 1140
TTAAAGAATTTAATTAATTATATAGAAATTTCTATAGTATAAAATACATACATCGAATAA
n f l n . l i y l . r y h i l c m . l i

X	N	A
M	L	L
N	A	U
1	3	1

CAAAGAAGTGTTCCTATTTCTATATAGTTTATTATACATGATACTTGGGTAGCTCAACA
-----+-----+-----+-----+-----+-----+-----+ 1200
GTTTCTTCACAAAGGATAAAGATATATCAAATAATATGTACTATGAACCCATCGAGTTGT
q r s v s y f y i v y y t . y l g s s t

✓	✓
TM	TM
RS	RS
UE	UE
91	91
/	/

TTCTTAATAAACAGCCTTTGTATTTCAGAAATATAAAATTGAAATAGATATATATAAAGTTA
-----+-----+-----+-----+-----+-----+-----+ 1260
AAGAATTATTTGTCGAAACATAAGTCTTATATTTTAACTTTATCTATATATATTTCAAT
f l i n s l c i q n i k l k . i y i k l

AAAAAAAAAAAAAAAAAAAA
-----+-----+-----+ 1277
TTTTTTTTTTTTTTTTTT
k k k k k k

FIG. 7(g)